IN THE CLAIMS:

Cancel claims 1-26.

1.(Cancelled) An apparatus for tracking errors in an embedded system, the apparatus comprising:

a plurality of buffers; and

a tracing module communicating with the plurality of buffers, the tracing module configured to make a record of events occurring during operation of a segment of program code which are useful for finding and correcting errors, the tracing module also configured to selectively transmit the record of events to the plurality of buffers.

2.(Cancelled) The apparatus of claim 1, wherein each buffer in the plurality of buffers is configured to store records of a different type of event.

3. (Cancelled) The apparatus of claim 2, wherein the different types of events comprise errors, warnings, and messages.

4.(Cancelled) The apparatus of claim 1, wherein the plurality of buffers are each assigned to a different functional component of the program code.

5.(Cancelled) The apparatus of claim 1, further comprising a merging module configured to combine the records of events stored in the plurality of buffers into a common list of events.

6.(Cancelled) The apparatus of claim 5, wherein the common list of events is in chronological order.

7.(Cancelled) The apparatus of claim 1, wherein the tracing module is configured to timestamp each record of an event that is stored in the buffers.

8.(Cancelled) The apparatus of claim 5, wherein the merging module is configured to selectively combine the records of events.

9.(Cancelled) The apparatus of claim 2, wherein each record of an event is stored together with information about the event.

10.(Cancelled) The apparatus of claim 9, wherein the information about the event comprises the type of event.

11.(Cancelled) An apparatus for locating errors in an embedded system, the apparatus comprising:

a plurality of buffers;

a tracing module communicating with the plurality of buffers, the tracing module configured to make a record of events occurring during operation of a segment of program code which are useful for finding and correcting errors and to selectively transmit the records of events to the plurality of buffers, the tracing module configured to timestamp each record of an event that is stored in a buffer;

each buffer in the plurality of buffers configured to store a different type of event together with information about the event; and

a merging module configured to selectively combine the records of events from the plurality of buffers into a common list of events organized in chronological order.

12.(Cancelled) A method of tracking errors in an embedded system, the method comprising:

providing a plurality of buffers configured to store records of events useful in finding and correcting errors;

tracing the events occurring during operation of a segment of program code; and

selectively storing the records of events within the plurality of buffers.

13.(Cancelled) The method of claim 12, wherein selectively storing records of events comprises storing the records of events according to types of the events.

14.(Cancelled) The method of claim 13, wherein the types of events comprises errors, warnings, and messages.

15.(Cancelled) The method of claim 12, wherein providing a plurality of buffers further comprises assigning each buffer to a different functional component of the program code.

16.(Cancelled) The method of claim 15, further comprising merging a plurality of the records of events stored in the plurality of buffers into a common record of events.

17.(Cancelled) The method of claim 16, wherein merging the list of events comprises organizing the list of events in chronological order.

18.(Cancelled) The method of claim 12, further comprising placing a timestamp on each record of an event stored in the plurality of buffers.

19.(Cancelled) The method of claim 11, further comprising storing information about each event together with the record of the event.

20.(Cancelled) A method of tracking errors in an embedded system, the method comprising:

providing a plurality of buffers configured to store records of event useful in finding and correcting errors;

tracing the events occurring during operation of a segment of program code;

selectively storing the records of events within the plurality of buffers;

merging records of events from the plurality of buffers into a common record of events; and

organizing the list of events in chronological order.

21.(Cancelled) A method of tracking errors in an embedded system, the method comprising:

providing a plurality of buffers configured to store records of events useful in finding and correcting errors;

tracing the events occurring during operation of a segment of program code;

selectively storing the records of events within the plurality of buffers; and

storing the records of events in separate buffers according to types of the events, the types of events comprising errors, warnings, and messages.

22.(Cancelled) A computer system having embedded capability for locating errors in a segment of program code, the system comprising:

a computer having a processor;

a plurality of buffers operating within the processor;

a tracing module operating within the processor, communicating with the plurality of buffers, and configured to make a record of events occurring during operation of a segment of program code which are useful for finding and correcting errors and to selectively transmit the record of events to the plurality of buffers, the tracing module configured to timestamp each recorded event that is stored in a buffer.

23.(Cancelled) The computer system of claim 22, wherein each buffer in the plurality of buffers configured to store records of a different type of event together with information about the event, and further comprising a merging module

configured to selectively combine the records of events from the plurality of buffers into a common record of events organized in chronological order.

24.(Cancelled) The computer system of claim 22, wherein separate buffers in the plurality of buffers is configured to store records of a different type of event, the different types of events comprising errors, warnings, and messages.

25.(Cancelled) The computer system of claim 24, wherein separate buffers in the plurality of buffers are each assigned to a different functional component of the program code.

26.(Cancelled) An embedded system capable of tracking errors in a segment of program code, the embedded system comprising:

a plurality of storage locations configured to store records of events useful in finding and correcting errors;

means for tracing the events occurring during operation of a segment of program code;

means for selectively storing records of the events within the plurality of storage locations; and

means for storing the records of events in separate storage locations according to types of the events, the types of events comprising errors, warnings, and messages.

Please enter new claims 27-36:

--27. A system for tracking errors in program code, said system comprising:

first, second and third buffers; and

a tracing program embedded in said program code to monitor operation of said program code and log errors, warnings and messages pertaining to operation of said program code, said tracing program configured to log said errors in said first buffer, said warnings in said second buffer and said messages in said third buffer, said tracing program including a merging program module to subsequently merge said errors, warnings and messages based on a chronological order in which said errors, warnings and messages were logged.

28. A system for tracking errors in program code as set forth in claim 27 wherein all of said buffers reside in RAM.

29. A system for tracking errors in program code as set forth in claim 27 wherein said tracing program is further configured to time stamp each error, warning and message approximately when the respective error, warning and message is logged.

30. A system for tracking errors in program code as set forth in claim 27 further comprising:

fourth, fifth, sixth, seventh, eighth and ninth buffers; and wherein

said first buffer stores initialization errors, said second buffer stores initialization warnings and said third buffer stores initialization messages; and

said tracing program is configured to log read errors in said fourth buffer, read warnings in said fifth buffer, read messages in said sixth buffer, write errors in said seventh buffer, write warnings in said eighth buffer and write messages in said ninth buffer.

31. A system for tracking errors in program code, said system comprising:

first, second, third, fourth, fifth, sixth, seventh, eighth and ninth buffers; and

a tracing program embedded in said program code to monitor operation of said program code and log initialization errors, read errors, write errors, initialization warnings, read warnings, write warnings, initialization messages, read messages and write messages pertaining to operation of said program code, said tracing program configured to log said initialization errors in said first buffer, said initialization warnings in said second buffer, said initialization messages in said third buffer, said read errors in said fourth buffer, said read warnings in said fifth buffer, said read messages in said sixth buffer, said write errors in said seventh buffer, said write warnings in said eighth buffer, and said write messages in said ninth buffer.

32. A system for tracking errors in program code as set forth in claim 31 wherein all of said buffers reside in RAM.

33. A system for tracking errors in program code as set forth in claim 31 wherein said tracing program is further configured to time stamp each error, warning and message approximately when the respective error, warning and message is logged.

34. A system for tracking errors in program code, said system comprising:

first, second and third buffers; and

a tracing program embedded in said program code to monitor operation of said program code and log errors, warnings and messages pertaining to operation of said program code, said tracing program configured to log said errors only in said first buffer, said warnings only in said second buffer and said messages only in said third buffer.

35. A system for tracking errors in program code as set forth in claim 34 wherein all of said buffers reside in RAM.

36. A system for tracking errors in program code as set forth in claim 34 wherein said tracing program is further configured to time stamp each error, warning and message approximately when the respective error, warning and message is logged.--